adeonæ, Della Chiaje.
annulata, Risso.
barbata, Linck.
bicolor, Della Chiaje.
bifida, Pennant.
coralina, Risso.
decacnemos, Pennant.
decameros, Gray.
Dübeni, Böhlsche.
europæa, Leach.
fimbriata, Barrelier.
fimbriata, Dujardin (*non* Lamarck).
fimbriata, Miller.
gorgonia?, Fréminville.
mediterranea, Lamarck.
milleri, Müller.
pectinata, Linnæus (*non* Retzius).
petasus, Düben & Koren.
rosacea, Linck.

On a Hermaphrodite Trout, *Salmo fario*.

By Prof. Charles Stewart, Pres. Linn. Soc.

[Read 19th February, 1891.]

(Plate III.)

For the opportunity of examining and describing this exceedingly remarkable, if not unique, specimen, I am indebted to the kindness of Mr. Thos. Andrews, of Westgate House, Guildford, who has presented it to the Museum of the Royal College of Surgeons.

The specimen is a well-nourished example of the Common Trout (*Salmo fario*). It is 300 millim. in length; and I am informed by Mr. Andrews that on two occasions ripe ova were, by artificial pressure, extruded from its belly; and these eggs, although kept completely isolated, on both occasions developed normal young.

The fish, when received by me, had been kept for some time in strong spirits, which had made the body rigid in a bent position. The abdomen also had been opened, and a partial examination made.

In the body-cavity were between two and three dozen loose ova; these had apparently escaped from a rupture in the posterior extremity of the right genital gland (ovary), or from near the posterior end of the right genital duct, which appeared to be either ruptured or defective at this point.

The genital glands were both loosely attached by a fold of peritoneum, which commenced at the extreme anterior end of the body-cavity, and extended along the outer borders of the swimming-bladder.

The right genital gland, 47 millim. in length, appeared to be of entirely ovarian nature, and contained many large ova which protruded from its surface. The posterior extremity of the gland was ruptured, but whether before death or from subsequent handling I am unable to say.

The right duct, 73 millim. long, is a delicate tube attached to the ventral wall of the swimming-bladder, and extending from the posterior end of the gland to its termination in the uro-genital chamber; there were three ova lodged in the duct at the latter point; and a short distance in front the duct was ruptured.

The left genital gland is 59 millim. in length. At 26 millim. from its anterior extremity the ovarian structure is replaced by testicular, this testis region being 16 millim. long and 5 millim broad; it is abruptly defined by a constriction from the ovarian region in front, but posteriorly expands into the second portion of the ovary. The form of the testis is roughly that of a three-sided prism with a shallow groove in the middle of its ventral face.

The left duct is similar to the right, but is unruptured; they open side by side in the anterior wall of the uro-genital chamber.

There are two special points of interest in this case. Firstly, that from self-fertilized eggs healthy and normal young were reared; secondly, that this fish was fundamentally a male (as evidenced by the possession of genital ducts), the greater part of whose genital glands had acquired an ovarian structure. It is also, so far as I am aware, the first instance recorded of the occurrence of hermaphroditism amongst the Salmonidæ.

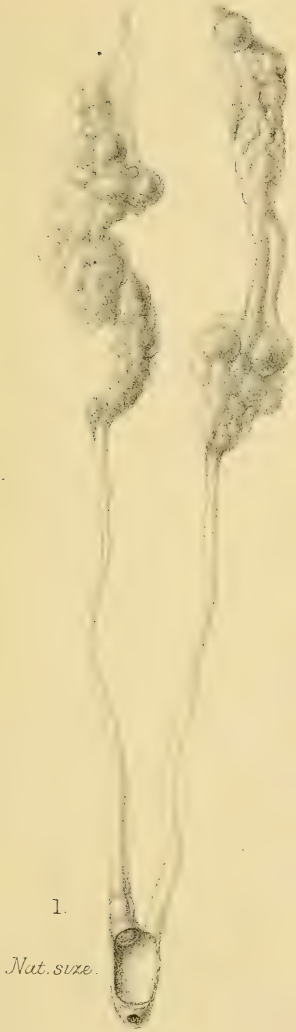
On a Hermaphrodite Mackerel, *Scomber Scomber*.

By Prof. Charles Stewart, Pres. Linn. Soc.

[Read 4th June, 1891.]

(Plate III.)

Mr. W. B. Tegetmeier has recently presented to the Museum of the Royal College of Surgeons a hermaphrodite Mackerel; and as there are very few cases on record, and this specimen has some unusual features, I have thought it desirable to give a brief account of it. The fish was 400 millim. long, and was received by



1.

Nat. size.

2.

$\frac{2}{3}$ *nat size*

Mintern del.

Mintern Bros. lith.

GENITALIA OF HERMAPHRODITE FISHES.

1. SALMO FARIO. 2. SCOMBER SCOMBER.